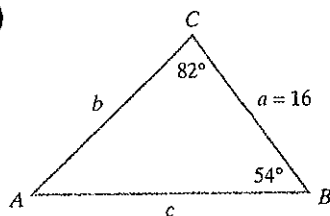
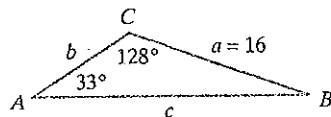


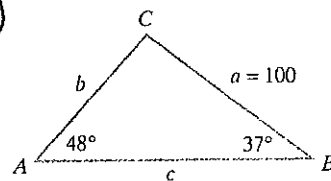
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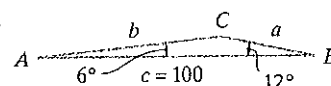
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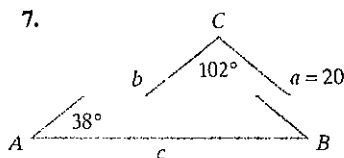
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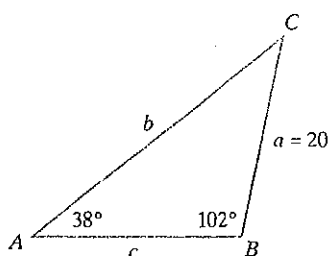
6.



7.



8.



In Exercises 9–16, solve each triangle. Round lengths to the nearest tenth and angle measures to the nearest degree.

9.  $A = 44^\circ$ ,  $B = 25^\circ$ ,  $a = 12$

10.  $A = 56^\circ$ ,  $C = 24^\circ$ ,  $a = 22$

11.  $B = 85^\circ$ ,  $C = 15^\circ$ ,  $b = 40$

12.  $A = 85^\circ$ ,  $B = 35^\circ$ ,  $c = 30$

13.  $A = 115^\circ$ ,  $C = 35^\circ$ ,  $c = 200$

14.  $B = 5^\circ$ ,  $C = 125^\circ$ ,  $b = 200$

15.  $A = 65^\circ$ ,  $B = 65^\circ$ ,  $c = 6$

16.  $B = 80^\circ$ ,  $C = 10^\circ$ ,  $a = 8$

In Exercises 17–32, two sides and an angle (SSA) of a triangle are given. Determine whether the given measurements produce one triangle, two triangles, or no triangle at all. Solve each triangle for the missing sides and angles, respectively. Round to the nearest tenth and the nearest degree, respectively.

17.  $a = 20$ ,  $b = 15$ ,  $A = 40^\circ$

18.  $a = 30$ ,  $b = 20$ ,  $A = 50^\circ$

19.  $a = 10$ ,  $c = 8.9$ ,  $A = 63^\circ$

20.  $a = 57.5$ ,  $c = 49.8$ ,  $A = 136^\circ$

21.  $a = 42.1$ ,  $c = 37$ ,  $A = 112^\circ$

22.  $a = 6.1$ ,  $b = 4$ ,  $A = 162^\circ$

23.  $a = 10$ ,  $b = 40$ ,  $A = 30^\circ$

24.  $a = 10$ ,  $b = 30$ ,  $A = 150^\circ$

25.  $a = 16$ ,  $b = 18$ ,  $A = 60^\circ$

26.  $a = 30$ ,  $b = 40$ ,  $A = 20^\circ$

27.  $a = 12$ ,  $b = 16.1$ ,  $A = 37^\circ$

28.  $a = 7$ ,  $b = 28$ ,  $A = 12^\circ$

29.  $a = 22$ ,  $c = 24.1$ ,  $A = 58^\circ$

30.  $a = 95$ ,  $c = 125$ ,  $A = 49^\circ$

31.  $a = 9.3$ ,  $b = 41$ ,  $A = 18^\circ$

32.  $a = 1.4$ ,  $b = 2.9$ ,  $A = 142^\circ$

In Exercises 33–38, find the area of the triangle having the given measurements. Round to the nearest square unit.

33.  $A = 48^\circ$ ,  $b = 20$  feet,  $c = 40$  feet

34.  $A = 22^\circ$ ,  $B = 20^\circ$ ,  $c = 30$  inches

35.  $B = 36^\circ$ ,  $a = 3$  yards,  $c = 6$  yards

36.  $B = 125^\circ$ ,  $a = 8$  yards,  $c = 5$  yards

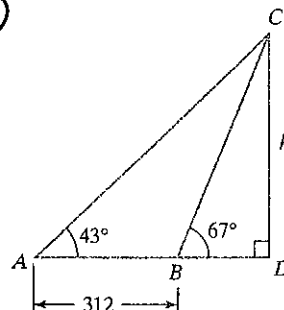
37.  $C = 124^\circ$ ,  $a = 4$  meters,  $b = 6$  meters

38.  $C = 102^\circ$ ,  $a = 16$  meters,  $b = 20$  meters

### Practice Plus

In Exercises 39–40, find  $h$  to the nearest tenth.

39.



40.

